

6.2.1

Long Range Transportation Planning to Deal with Oil

Presenter

EunSu Lee

Associate Research Fellow

Upper Great Plains Transportation Institute

eunsu.lee@ndsu.edu

Co-Presenter

Predicting traffic for long-range transportation planning (LRTP) to deal with significantly increasing oil transportation in Bakken formation arose many challenges and uncertainties. Significant needs of traffic forecasting must be met including safety, congestion, dust, and noise for quality of life issues. Seventeen oil counties located in the Bakken formation work closely with NDDOT and UGPTI for LRTP. The LRTP utilizes a variety of trip sources and GIS tools to provide accurate and reliable planning process. Spatial analysis is essential efforts for accurate and reliable LRTP modeling. The presentation will highlight GIS modeling processes to present trip generating, trip distribution, and trip assignment with response to the oil transportation. We also discuss about the challenges and lessons from the geospatial modeling: cleaning road networks, identifying oil-related facilities, and traffic assignments.

Bio(s):

EunSu Lee is an Associate Research Fellow at the Upper Great Plains Transportation Institute at North Dakota State University. He received his Ph.D. in Transportation and Logistics. He holds professional designations of GISP and CSCP.